AMENDMENTS TO THE CLAIMS

1. (Original) A method to compensate for stress-induced deflection in a compound microprobe, the microprobe including a substrate, a microcantilever extending outwardly from the substrate, and a film formed on the microcantilever, said method comprising the steps of:

determining an amount of stress-induced deflection of the microcantilever; and

mounting the microprobe so as to compensate for the stress-induced deflection.

2. (Original) The method of Claim 1, wherein said mounting step includes selecting a compensation piece based upon the amount of stress-induced deflection.

3. (Original) The method of Claim 2, wherein the compensation piece is a wedge generally aligning the microcantilever with a deflection detection apparatus.

4. (Original) The method of Claim 2, wherein said step of selecting the compensation piece comprises correcting an angle between a longitudinal axis of the microcantilever and the substrate so as to insure that light reflected from the microcantilever during operation contacts a detector of a deflection detection apparatus.

5. (Original) The method of Claim 4, wherein said selecting step includes selecting a dimension of the compensation piece.

6. (Original) The method of Claim 5, wherein the compensation piece is a wedge and the dimension is an angle between a microcantilever mounting surface of the wedge and a base of the wedge.

7. (Original) The method of Claim 6, wherein said mounting step includes attaching substrate to the mounting surface.

8. (Original) The method of Claim 2, wherein said mounting step includes coupling a bottom surface of the substrate to the compensation piece.

9. (Original) The method of Claim 2, wherein the stress-induced deflection is a static deflection caused by the film.

10. (Withdrawn) ~~A microprobe assembly including a microcantilever and a substrate coupled to a support, the microprobe assembly comprising:~~

~~a compensation piece disposed intermediate the support and the substrate, said compensation piece configured to compensate for an amount of static deflection of the microcantilever.~~

11. (Withdrawn) ~~The microprobe assembly of Claim 10, wherein said compensation piece is a wedge-shaped structure having a mounting surface and a base.~~

12. (Withdrawn) ~~The microprobe assembly Claim 11, wherein an angle between said mounting surface and said base is selected based on the static deflection so as to align the microcantilever to a deflection detection apparatus.~~

13. (Withdrawn) ~~The microprobe assembly of Claim 10, wherein the compensation piece is formed integrally with the support.~~

14. (Withdrawn) ~~The microprobe assembly of Claim 10, wherein said compensation piece is made of an insulating material.~~

15. (Original) A method of compensating an amount of static deflection associated with at least one microprobe of a first planar array of microprobes, each microprobe of the array including a substrate, a microcantilever extending outwardly from the substrate, and a film formed on the microcantilever, the method comprising the steps of:

directing a beam of light towards a first microprobe of the first array of microprobes;

reflecting the beam off the microcantilever of the first microprobe;

determining a first amount of static deflection based on the reflected beam; and

selecting a first microprobe compensation piece based upon the first amount of deflection.

16. (Original) The method of Claim 15, further comprising the step of mounting the first microprobe on the first selected microprobe compensation piece.

17. (Original) The method of Claim 15, further comprising the step of:

mounting each of the microprobes of the first planar array of microprobes on a compensation piece having the same shape as the first selected microprobe compensation piece.

18. (Original) The method of Claim 15, further comprising the step of:

repeating said directing, reflecting, determining and selecting steps for each of the microprobes of the first array of microprobes;

and then mounting each of the microprobes on a corresponding compensation piece having a shape selected according to a corresponding amount of static deflection.

19. (Original) The method of claim 15, wherein the first compensation piece is a wedge.

20. (Original) The method of Claim 19, wherein the wedge includes a base and a mounting surface defining an angle.

21. (Original) The method of Claim 20, wherein said selecting step includes computing the angle based on said determining step.

22. (Original) The method of Claim 16, further comprising the step of:

integrally forming the first array of microprobes from a single wafer prior to the directing step.

23. (Original) The method of Claim 15 further comprising the step of:

mounting each of a second planar array of microprobes on a corresponding compensation piece shaped according to the first selected microprobe compensation piece.

24. (Original) The method of Claim 23, including the steps of:

integrally forming the first array of microprobes from a first wafer; and

integrally forming the second array from a second wafer.

25. (Original) The method of Claim 15, further comprisijng the steps of:

mounting the first array of microprobes on an X-Y translating stage configured to translate in a plane parallel to the first array prior to said directing step; and

removing the first array from the X-Y translating stage.

26. (Original) The method of Claim 25, further comprising the step of:

translating the stage to a first position in which the first microprobe of the first array of microprobes is disposed in an optical path defined by the beam, wherein said translating step is performed prior to said directing step;

moving, after said selecting step, the stage to a second position in which a second microprobe of the first array of microprobes is disposed in the optical path;

reflecting the beam off a microcantilever of the second microprobe;

determining a second amount of deflection of the beam indicative of an amount of static deflection of the microcantilever of the second microprobe;

selecting a second microprobe compensation piece based upon the second amount of deflection; and

repeating said moving, directing, reflecting, determining and selecting steps for each microprobe of the first array of microprobes.

27. (Original) The method of Claim 26, wherein the first and second compensation pieces are wedge-shaped.

28. (Original) The method of Claim 27, wherein the compensation pieces each have a base and a mounting surface defining a corresponding angle.

29. (Original) The method of Claim 28, wherein the corresponding angles of the compensation pieces are different.

30. (Original) The method of Claim 25, wherein the translating stage is motor-driven.

31. (Original) The method of Claim 28, wherein the compensation pieces are made of an insulating material.

32. (Original) A compound microprobe assembly comprising:

a microprobe mount;

a microprobe coupled to said microprobe mount, the microprobe having an amount of static stress-induced deflection; and

wherein said microprobe mount is configured so as to compensate for the amount of static deflection.

33. (Original) The microprobe assembly of Claim 32, wherein said microprobe mount includes a support and a compensation piece having a shape corresponding to the amount of static deflection.

34. (Original) The microprobe assembly of Claim 33, wherein the compensation piece is a wedge generally aligning the microprobe with a deflection detection apparatus.

35. (Original) The microprobe assembly of Claim 33, wherein said support and said compensation piece are integrally formed.